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10/802,044

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Peri L. Tarr

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MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC

8321 OLD COURTHOUSE ROAD

SUITE 200

VIENNA, VA 22182-3817

EXAMINER

PHAM, CHRYSTINE

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/802,044

Applicant(s)

TARR ET AL.

Examiner

Chrystine Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ~~1-30~~ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is responsive to application 10/802044 filed on March 17, 2004.  
Claims 1-30 are presented for examination.

#### *Claim Objections*

2. Claim 19 is objected to because of the following informalities: "synch" is misspelled. Appropriate correction is required.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 5, 7, 8, 15, 16, 18, 19, 22, and 25-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Chiles et al. (US 6,748,582 B1, "Chiles").

#### Claim 1

Chiles teaches a system (see at least FIG.1 & associated text) for identifying concerns (see at least Abstract), comprising: a specifying device for specifying at least one initial concern (see at least 304 FIG.3 & associated text); and an identifying device for

identifying at least one related concern having a relationship with said at least one initial concern (see at least 308 FIG.3 & associated text; *task 206 module col.5:55-60*).

#### Claim 2

The rejection of base claim 1 is incorporated. Chiles further teaches wherein said at least one initial concern comprises a plurality of entities (see at least 304, 320, 322 FIG.3 & associated text).

#### Claim 5

The rejection of base claim 1 is incorporated. Chiles further teaches wherein said relationship comprises a same class that can be created by the concern, a same class that can be created from the concern, a reference to same data as the initial concern, and a union or intersection of two concerns (see at least *tasks, criteria col.5:35-42; parser 204, errors, warnings, category col.5:55-60; FIG.4 & associated text; col.7:31-col.8:5*).

#### Claim 7

The rejection of base claim 1 is incorporated. Chiles further teaches wherein said at least one initial concern and said at least one related concern comprise source code in a software system (see at least 302 FIG.3 & associated text).

#### Claim 8

The rejection of base claim 1 is incorporated. Chiles further teaches wherein said at least one initial concern and said at least one related concern comprise other than source code in a software system (see at least 310, 312, 314 FIG.3 & associated text).

Claim 15

The rejection of base claim 1 is incorporated. Chiles further teaches wherein said identifying said at least one related concern comprises automatically generating said at least one related concern (see at least *parser-detected tasks, syntax errors* col.7:52-62).

Claim 16

The rejection of base claim 1 is incorporated. Chiles further teaches wherein said specifying device comprises at least one of a keyboard and a mouse for specifying said at least one initial concern (see at least 40, 42 FIG.1 & associated text).

Claim 18

Chiles teaches a concern manipulation environment (CME) comprising the system of claim 1 (see at least FIG.1 & associated text).

Claim 19

The rejection of base claim 18 is incorporated. Chiles further teaches wherein a data structure is maintained for keeping concerns in synch with changes in a software

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system (see at least col.5:16-30).

Claims 22, 29 and 30

Claims recite limitations, which have been addressed in claim 1, therefore, are rejected for the same reasons as cited in claim 1.

Claim 25

The rejection of base claim 22 is incorporated. Chiles further comprising: displaying said at least one initial concern and said at least one related concern; and navigating said software system in an integrated development environment (IDE) (see at least col.5:55-60).

Claim 26

The rejection of base claim 22 is incorporated. Claim recites limitations, which have been addressed in claim 15, therefore, is rejected for the same reasons as cited in claim 15.

Claim 27

The rejection of base claim 22 is incorporated. Chiles further teaches wherein said at least one initial concern comprises at least one of an extensional concern and an intensional concern (see at least 304, 320, 322 FIG.3 & associated text).

Claim 28

Chiles teaches a method of generating concerns, comprising: identifying a first concern; examining a program using said first concern; identifying a second concern using said first concern and text of said program; and displaying and navigating concerns in an integrated development environment (IDE) (see at least col.5:55-60; col.7:7-16).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 4 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiles in view of Kolawa et al. (US 5,860,011, "Kolawa").

Claim 3

The rejection of base claim 1 is incorporated. Chiles does not expressly disclose wherein said relationship comprises a call to said at least one initial concern. However, Kolawa teaches a system and method for identifying quality concerns in the source code wherein relationship (between two related concerns) comprises a call to said at least one initial concern (see at least *quality concerns, current rule* col.4:48-65; 30 FIG.3 & associated text). Chiles and Kolawa are analogous art because they are both

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directed to verifying source code. It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to incorporate the teaching of Kolawa into that of Chiles for the inclusion said relationship comprising a call to and from the initial concern. And the motivation for doing so would have been to identify source code instructions that are the violate the rule(s) associated with said concern (see at least Kolawa col.4:55-56).

#### Claim 4

The rejection of base claim 1 is incorporated. Kolawa further teaches wherein said relationship comprises a call from said at least one initial concern (see at least 36 FIG.3 & associated text).

#### Claim 23

Claim recites limitations, which have been addressed in claims 3-4, therefore, is rejected for the same reasons as cited in claims 3-4.

7. Claims 6, 9-14, 17, 20, 21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiles in view of Kiss et al. (6,484,155 B1, "Kiss").

#### Claim 6

The rejection of base claim 1 is incorporated. Chiles does not expressly disclose wherein said specifying device comprises a query tool for inputting a query, such that



said initial concern is returned as a result of said query. However, Kiss teaches a method and system of identifying problems (i.e., concerns) (see at least col.2:42-col.3:16) which comprises a GUI for receiving user input queries (e.g., questions about problems/concerns or description of problems/concerns) wherein a specifying device comprises a query tool for inputting a query, such that said initial concern is returned as a result of said query (see at least col.8:20-31). Chiles and Kiss are analogous art because they are both directed to resolving software errors. It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to incorporate the teaching of Kiss into that of Chiles for the inclusion of query tool. And the motivation for doing so would have been to adaptively and dynamically synthesize (i.e., generate and/or expand) problem-specific knowledge interfaces and reasoning procedures as the problem-solving process moves forward (see at least Kiss col.2:42-col.3:17).

#### Claim 9

The rejection of base claim 6 is incorporated. Chiles further teaches a navigating device for navigating said software system in an integrated development environment (IDE) (see at least *task list, editor 202* col.6:8-14).

#### Claim 10

The rejection of base claim 6 is incorporated. Chiles further teaches wherein said system is part of an integrated development environment (IDE) for displaying said at

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least one initial and at least one related concern, and navigating said software system (see at least col.5:55-60).

#### Claim 11

The rejection of base claim 9 is incorporated. Chiles further teaches wherein said navigating device comprises a graphical user interface (GUI) for using said at least one initial concern and said at least one related concern to explore said software system and construct a new software system (see at least col.5:16-30).

#### Claim 12

The rejection of base claim 9 is incorporated. Kiss further teaches wherein said navigating said software system comprises navigating said software system using both virtual and actual structuring of different artifacts within said software system (see at least col.11:40-50; FIGS.6-20 & associated text).

#### Claim 13

The rejection of base claim 9 is incorporated. Chiles further teaches wherein said navigating said software system comprises using said navigating device to explore concerns and the relationships between said concerns based on a visual representation of query results (see at least col.7:7-16).

#### Claim 14

The rejection of base claim 9 is incorporated. Kiss further teaches wherein said navigating device comprises a visual diagram which gives call relations between different parts of a program selected by query operators expressed as regular expressions (see at least col.7:65-col.8:5).

#### Claim 17

The rejection of base claim 1 is incorporated. Kiss further teaches wherein said specifying said at least one initial concern comprises defining a query language comprising a set of operators (see at least 511, 513, 515 FIG.5 & associated text) and evaluation properties that together work to identify concerns within different artifacts that make up a software system (see at least 517, 519, 521 FIG.5 & associated text).

#### Claims 20-21

Claims recite limitations, which have been addressed in claims 1, 6 and 19, therefore, are rejected for the same reasons as cited in claims 1, 6 and 19.

#### Claim 24


Claim recites limitations, which have been addressed in claim 6, therefore, is rejected for the same reasons as cited in claim 6.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chrystine Pham whose telephone number is 571-272-3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



TUAN DAM  
SUPERVISORY PATENT EXAMINER